

# **ARIZONA TRAILS 2005**

## **STATE MOTORIZED AND NONMOTORIZED TRAILS PLAN**



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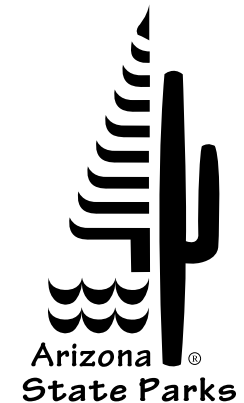
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# **Arizona Trails 2005**

## **Statewide Motorized and Nonmotorized Trails Plan**



**November 2004**

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## Executive Summary

The purpose of this plan is to provide information and recommendations to guide Arizona State Parks and other agencies in Arizona in their management of motorized and nonmotorized trail resources, and specifically to guide the distribution and expenditure of the Arizona Off-Highway Vehicle (OHV) Recreation Fund (A.R.S. § 28-1176), trails component of the Arizona Heritage Fund (A.R.S. § 41-503) and the Federal Recreational Trails Program (23 U.S.C. 206).

This plan includes both motorized and nonmotorized trail information, public involvement results and recommendations for future actions regarding trails in Arizona. This plan was prepared by Arizona State Parks as required by state legislation (State Off-Highway Vehicle Recreation Plan, A.R.S. § 41-511.04 and State Trails Plan § 41-511.22). The 2004 publication of the two plans referenced above has been incorporated into this single document titled *Arizona Trails 2005: State Motorized and Nonmotorized Trails Plan*, which supercedes the *ARIZONA TRAILS 2000 PLAN*.

When the word “trail” is used in this plan, it refers to recreational trails and/or roads used by motorized and nonmotorized trail users.

Specific objectives of the *Arizona Trails 2005: State Motorized and Nonmotorized Trails Plan* include:

- Assess the needs and opinions of Arizona’s residents as they relate to trail recreation opportunities and management;

- Establish priorities for expenditures from the Arizona OHV Recreation Fund, Arizona Heritage Fund trails component and Federal Recreational Trails Program;
- Develop strategic directions to guide activities for the Arizona State Parks’ OHV and Trails Programs; and
- Recommend actions that enhance motorized and nonmotorized trail opportunities to all agencies and the private sector who provide trail resources in Arizona.

Arizona State Parks implemented an extensive research and public involvement process to determine the final priority recommendations of the plan. A statewide survey of over 5,000 residents was conducted from January to September 2003. The statewide survey had two components, first Arizona residents were contacted via telephone for a short survey and those that agreed were given a longer mail survey. In addition to the statewide surveys, Arizona State Parks facilitated 15 public workshops in order to gain further information from trail users, land managers, recreation and natural resource managers and interested residents.

This plan is written primarily for recreation planners and land managers. The plan also includes information regarding trail users and trends affecting trails in Arizona. The plan first presents background information on trails in Arizona. Next the planning process is described along with findings of the surveys and workshops, and then the recommendations are outlined. The plan also includes accomplishments of the OHV and Trails Programs over the past five years and appendices of relevant information. This information is intended to be a resource to guide trail agencies for the next five years—2005 through 2009.

Findings include:

- Approximately two-thirds of Arizona residents (66.4%) are trail users and one-third (33.6%) are nonusers.
- 62.7% of respondents participated in nonmotorized trail use at some point during their time in Arizona and 56.5% said most of their trail use involved nonmotorized activities.
- 24.5% of respondents participated in motorized trail use at some point during their time in Arizona and 7.0% said most of their trail use involved motorized activities.
- The most important motives for using trails for both nonmotorized and motorized trail users were *to view scenic beauty, to be close to nature, and to get away from the usual demands of life*.
- The most popular nonmotorized activities on Arizona's trails are *trail hiking (day hiking), walking, visiting historical archaeological sites, and jogging/running*.
- The most popular motorized activities on Arizona's trails are *four-wheel driving, driving to sightsee or wildlife viewing/birding, all-terrain vehicle (ATV) riding and motorized trail biking/dirt biking*.
- Nonmotorized trail users most often recreate just outside a city or town or in a city or town, but said they prefer to use trails in a remote area or a rural area. Motorized trail users most often recreate in rural and remote settings and most prefer those settings.
- Nonmotorized users travel an average of 23 miles and motorized trail users travel an average of 51 miles for the activity they do most often.
- The majority of trail users (62% to 70%) prefer trails of moderate difficulty, though more motorized users (17%) prefer challenging trails than do nonmotorized users (5%).
- Public access to trail opportunities is a concern of Arizona's trail users, especially motorized trail users. Nearly half (48%) of motorized users feel that public access to trails for their preferred activities has declined in the last five years.
- Both nonmotorized and motorized users feel that environmental concerns, such as *litter, trash dumping, erosion of trails, damage to historical or archaeological sites* are slight to moderate problems.
- Social issues that are considered slight to moderate problems by nonmotorized and motorized trail users include *residential/commercial development, unregulated OHV use, and lack of trail ethics by other users*.
- Trail support facilities that were important to both nonmotorized and motorized users included *trash cans, trail signs, restrooms and drinking water*.
- Both motorized and nonmotorized users said the top management priorities were to *keep areas clean of litter/trash, maintain existing trails, repair damage to trails, and enforce existing rules and regulations*.
- When asked to rate the top three trail issues in Arizona, nonmotorized users said *lack of funding for trails, urban development limiting access, and inadequate trail maintenance*. Motorized users replied *closure of trails, urban development limiting access, and lack of funding for trails*.





## PRIORITY RECOMMENDATIONS

*Developed from the Arizona Trails 2005 public involvement process*

### MOTORIZED TRAIL USE

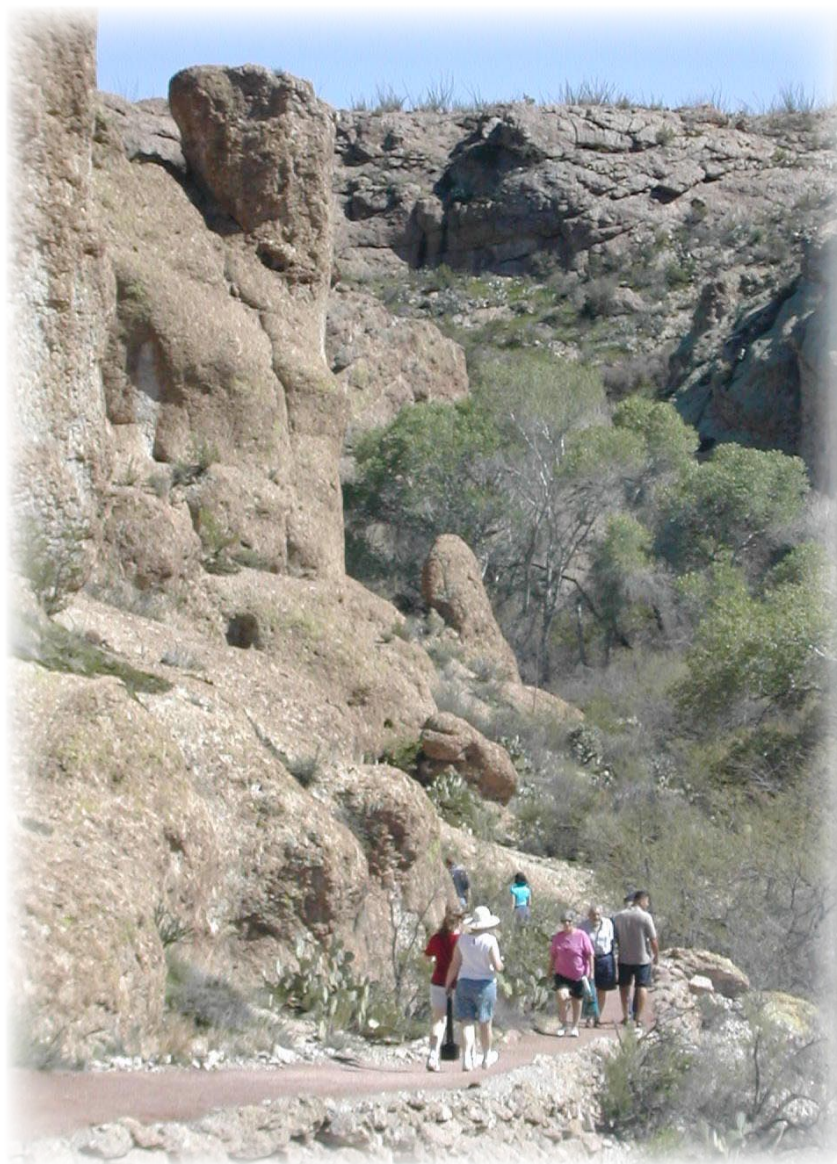
<b>First Level Priority Motorized Recommendations</b>
Develop New Trails and Motorized Recreation Opportunities
Protect Access to Trails/Keep Trails Open
Renovation and Maintenance of Existing Trails
Education and Trail Etiquette
<b>Second Level Priority Motorized Recommendations</b>
Enforcement of Existing Rules and Regulations/Monitoring
Trail Information and Maps
Comprehensive Planning



### NONMOTORIZED TRAIL USE

<b>First Level Priority Nonmotorized Recommendations</b>
Renovation and Maintenance of Existing Trails
Protect Access to Trails/Acquire Land for Public Access
Develop Signage and Support Facilities
<b>Second Level Priority Nonmotorized Recommendations</b>
Comprehensive Planning
Trail Information/Maps
Education and Trail Etiquette

<b>Other Priority Recommendations</b>
Reduce Cultural and Environmental Resource Impacts (both motorized and nonmotorized)
Seek Additional Funding Sources (both motorized and nonmotorized)
Interagency Coordination (both motorized and nonmotorized)
Develop Signage and Support Facilities (motorized)
Develop New Trails (nonmotorized)
Coordinated Volunteerism (nonmotorized)
More Accessible Trails for Individuals with Physical Disabilities (nonmotorized)
Enforcement of Existing Rules and Regulations/Monitoring (nonmotorized)



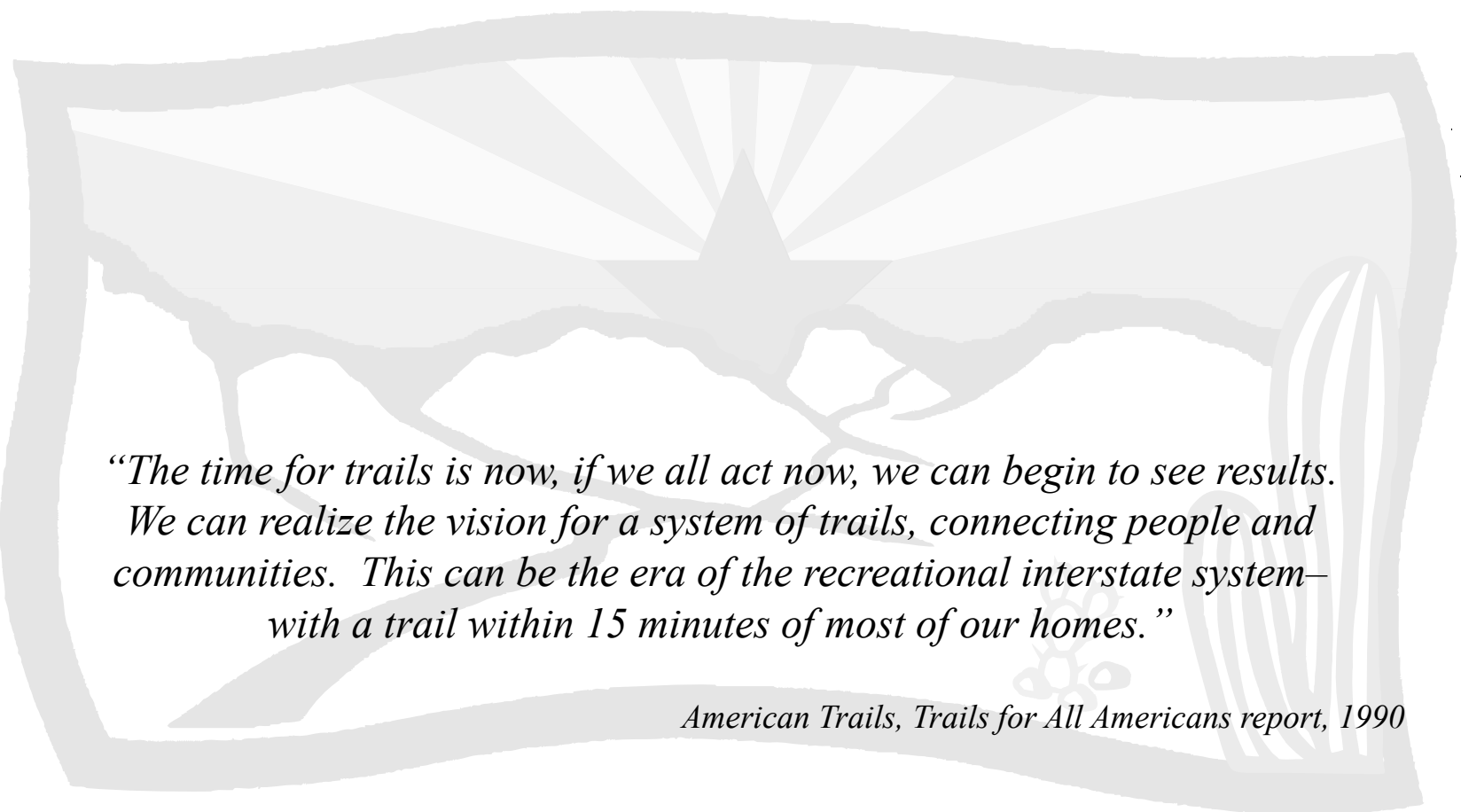
Hikers at Boyce Thompson Arboretum State Park



Four-Wheel Drive Enthusiasts on the Great Western Trail

# *Chapter 1*

## *Introduction*



*“The time for trails is now, if we all act now, we can begin to see results. We can realize the vision for a system of trails, connecting people and communities. This can be the era of the recreational interstate system—with a trail within 15 minutes of most of our homes.”*

*American Trails, Trails for All Americans report, 1990*





Four-wheel drive enthusiasts, horseback riders, trail motorcyclists, ATV riders, hikers, cross-country skiers, mountain bicyclists and backpackers are all part of Arizona's trails community.

## Chapter One: Introduction

This plan includes both motorized and nonmotorized trail information, public involvement results and recommendations. The plan was prepared by Arizona State Parks as required by state legislation (state off-highway vehicle (OHV) recreation plan, A.R.S. §41-511.04 and state trails plan, A.R.S. § 41-511.22). The 2004 publication of the two plans referenced above has been incorporated into this single document titled *Arizona Trails 2005 Plan*, which supercedes the 1999 publication titled *ARIZONA TRAILS 2000: State Motorized and Nonmotorized Trails Plan*.

Information (narrative and tables) specific to either motorized or nonmotorized trail use is presented separately throughout the chapters.

A substantial part of this plan is composed of findings from motorized and nonmotorized trail users, recreation planners, land and natural resource planners and the general public gathered during the public involvement process. Additional information can be found in Appendices A and B and in the full survey report, *Trails 2005: A Study of Arizona's Motorized and Nonmotorized Trail Users*.

### **Purpose**

The purpose of this plan is to provide information and recommendations to guide Arizona State Parks and other agencies in their management of motorized and nonmotorized trail resources, and specifically to guide the distribution and expenditure of the Arizona Off-Highway Vehicle Recreation

Fund A.R.S. § 28-1176, the trails component of the Arizona Heritage Fund A.R.S. § 41-503, and the Federal Recreational Trails Program (23 U.S.C. 206).

This opening chapter provides general information about recreational trail use in Arizona including definitions, user information, trail management partnerships and trends affecting trail recreation. It is meant to provide a background to the plan findings and recommendations.

### **Definitions**

The term “trail” can be interpreted in many different ways. For this plan, a “trail” is defined as any pathway or roadway, which is usually unpaved, but can include paved pathways, that is used by either motorized or nonmotorized recreational trail users. A trail can be single or double track, dirt or paved, or for single or multiple uses. Trails can be urban, rural or wilderness in their setting.

This plan focuses primarily on recreational trails or roads as linear paths or corridors that are accessible to the public. When the word “trail” is used in this plan, it refers to a “recreational trail” (see page 53 for definition) used by motorized and nonmotorized trail users. Different land managing agencies utilize various definitions for “trail.” While this definition of trail highlights trails as a mode of recreational travel, trails also involve natural, scenic, historic and other recreational values.

When the plan mentions “motorized trails” it is addressing off-highway vehicle use. “OHVs” are defined broadly to include all vehicles (licensed or unlicensed) powered by an internal combustion engine that travel off paved surfaces. OHVs include: pickup trucks, sport utility vehicles (SUV)

and other high clearance and four-wheel drive vehicles; all-terrain vehicles (ATV); motocross, Trials, enduro and trail motorcycles; dune buggies or sandrails, and snowmobiles. There are few areas in Arizona that are truly open to cross-country vehicle travel, therefore, the term off-highway vehicle (OHV) is favored over off-road vehicle (ORV).

“Nonmotorized trails” are defined as those trails used for hiking, horseback riding, bicycling, mountain bicycling, walking, backpacking, jogging, running, rollerblading, in-line skating, skate boarding, cross-country skiing, snowshoeing, and hiking with pack stock such as horses, mules and llamas. It also includes water trails for canoes and kayaks.

When referring specifically to the Arizona Heritage Fund, State statute defines trails as *“those trails for nonmotorized use nominated for inclusion in the State Trails System, including urban, cross-state, recreation, interpretive or historic trails.”*

### **Arizona’s Trail Users**

This plan recognizes motorized and nonmotorized trail users as those utilizing recreational trails and roads for traditional uses such as four-wheel driving, motorized trail biking, ATV riding, hiking, bicycling and horseback riding.

However, a significant portion of Arizona’s trails community is made up of those who use recreational trails and roads as avenues to sightsee, watch wildlife, visit historic sites, access hiking trails, picnic areas, rock climbing sites and hunting and fishing areas, trailer in horses, mountain bicycles or ATVs to trailheads; and in general, explore the outdoors. **All of these people are part of the Arizona trails community, but are not necessarily reflected in the following trail use numbers.**

The *Arizona Trails 2005* survey (see Figures 1 and 2 and Chapter 2) conducted by Arizona State Parks and Arizona State University found that:

- Over 66.4% of Arizona’s residents consider themselves trail users. This translates to approximately 3.7 million Arizonans who use trails in this state, which does not include the millions of visitors who come to Arizona each year and also use trails.
- Over 62.7% of residents participated in nonmotorized activities at some point during their time in Arizona, 56.5% reported that nonmotorized trail use accounted for the majority of their time and are considered ‘core users.’
- The percentage of nonmotorized trail core users ranged from a high of 69.4% in Coconino County to a low of 37.2% in Yuma County; overall nonmotorized use ranged from 82% in Coconino to 47% in Yuma.
- Over 24.5% of residents participated in motorized trails activities, 7.0 % reported that motorized trail use accounted for the majority of their time and are considered ‘core users.’
- The percentage of motorized trail core users was higher in rural counties and ranged from a high of 25.0% in La Paz County to a low of 5.3% in Pima County; overall motorized use ranged from 50% in Greenlee County to 21% in Pima.
- The remaining 33.6% of Arizonans say they do not use trails at all.
- To determine user type percentages, survey respondents were asked to indicate their predominant type of use (greater than or equal to 51%).

A small percentage (2.9%) of the population said they use trails equally (50/50) for motorized and nonmotorized activities. These respondents were classified as generalists and were left out from the survey findings as they tend to homogenize the results.

The overall trail users are comprised of respondents who answered yes to the question, “Have you ever used a trail for motorized recreation?” and/or yes to “Have you ever used a trail for nonmotorized recreation?” Respondents could answer yes to both questions. The percentages of motorized and nonmotorized trail users is shown in Figure 1.

In short, 24.5% of respondents participate in motorized activities and 62.7% participate in nonmotorized activities. The motorized percentage (24.5%) includes those who said they are motorized users exclusively as well as those who said they use trails for both motorized and nonmotorized uses. The nonmotorized percentage (62.7%) includes those who said they are nonmotorized users exclusively as well as those who said they use trails for both motorized and nonmotorized uses. These figures exclude the small percentage who say they use both types equally.



Core users are comprised of respondents who said they are predominantly motorized or predominantly nonmotorized trail users. The percentages for each trail use type and for nonusers of trails are shown by individual counties and by the statewide total in Figure 2. (See pages 19-20 for further explanation. Also, see chart on page 81 for participation percentages and number of use days by individual trail activity.)

### **Motivations for Trail Use**

Both motorized and nonmotorized trail users indicated the same top five motivations for using trails:

- View scenic beauty
- To be close to nature
- To get away from the usual demands of life
- Learn more about nature
- Be with family or friends
- For nonmotorized users, the fifth top motivation for using trails also included Improve my physical fitness

### **Benefits of Trails**

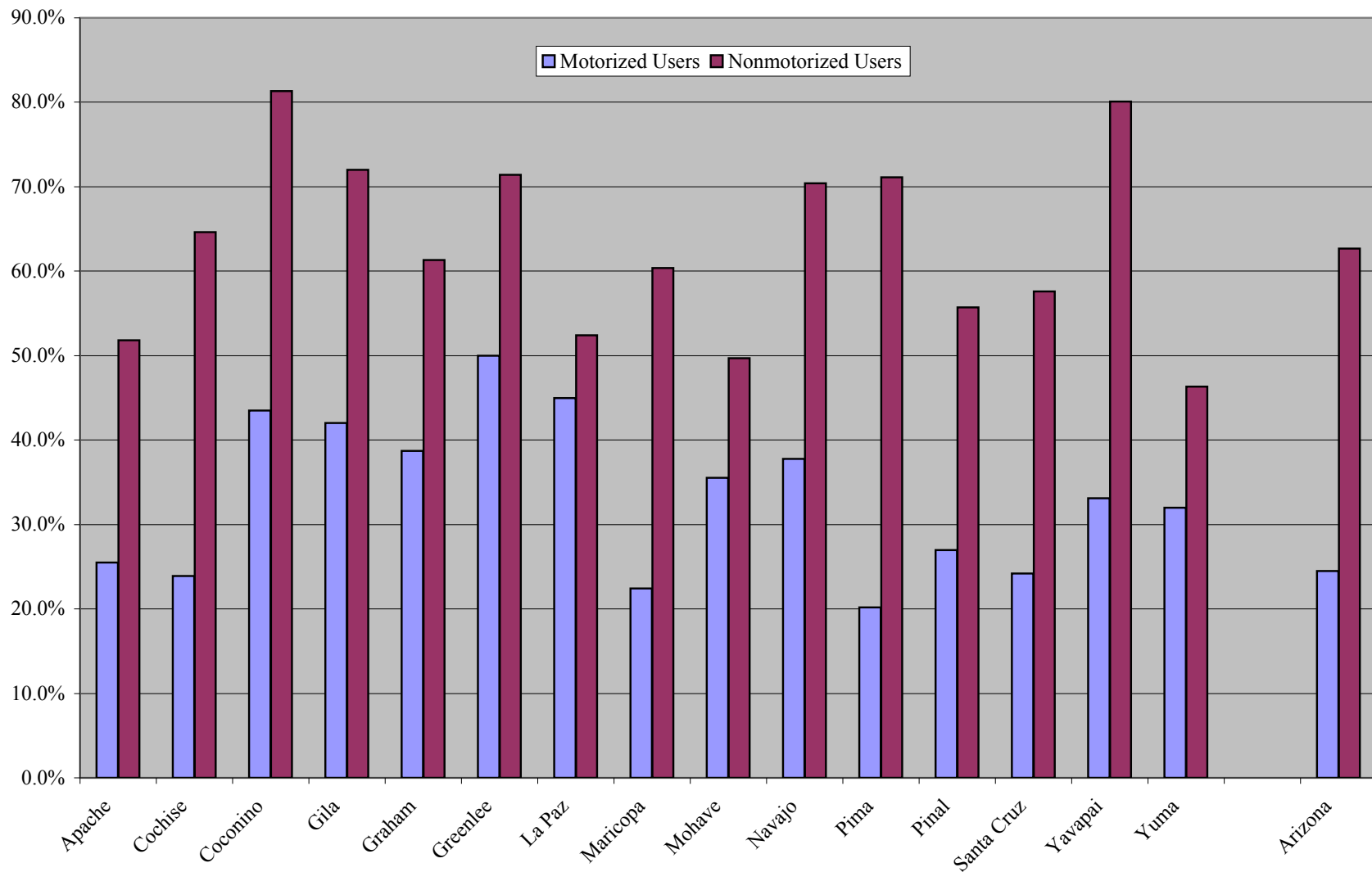
Trails enrich our quality of life by making communities more livable, by highlighting and linking people to areas rich in culture, natural beauty, unique geography, historic significance, and ecological diversity. Trails also provide economic, health and fitness, and education benefits, as well as other recreation opportunities.

*Economic.* An organized trail system is a desirable amenity that can contribute to the economic soundness of a community. Trails and trail systems have the potential to create jobs, increase property values, expand or attract business, increase local tax revenues, decrease local governmental expenditures and promote a local community. In urban areas, the increased use of trails directly benefits outdoor businesses that provide merchandise associated with trail activities. These trails may increase property values, as many housing developments are located close to trail systems. Trails can enhance property values by providing trail access to owners, making such areas more desirable in which to live. Trails also benefit other, more remote areas of Arizona by serving as recreational destinations supporting tourism and benefiting nearby communities.

### Arizona's Overall Motorized and Nonmotorized Trail Use Percentages

24.5% of adult Arizona residents participate in motorized trail activities and 62.7% participate in nonmotorized activities. Overall trail use percentages are comprised of survey respondents who answered yes to the question, "Have you ever used a trail for motorized recreation?" and/or yes to "Have you ever used a trail for nonmotorized recreation?"

Figure 1: Overall Use Type by County

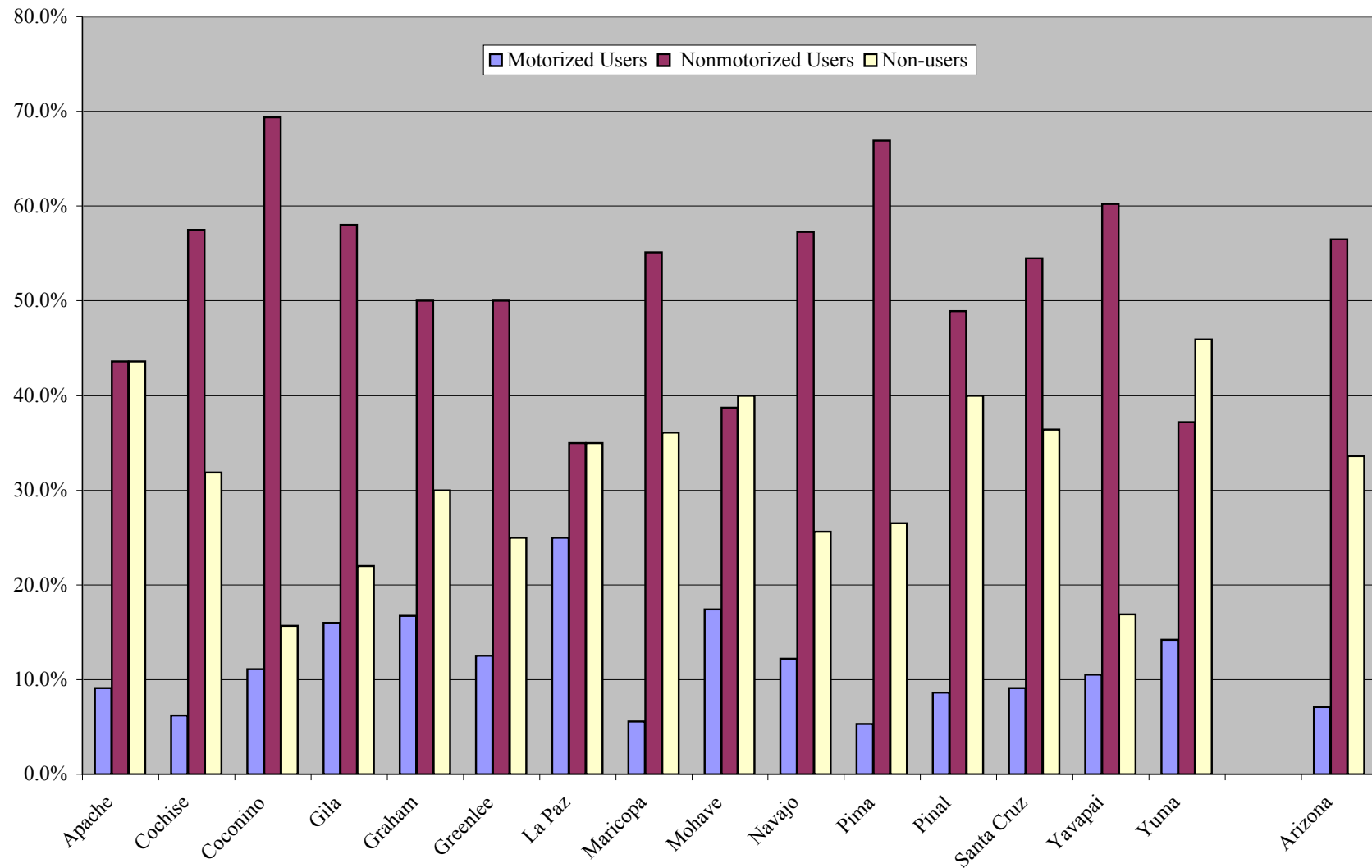




### Arizona's Core Motorized and Nonmotorized Trail Use and Non-use Percentages

Core users are comprised of respondents who said they are predominantly motorized or predominantly nonmotorized trail users. See chart on page 81 for participation percentages and number of use days by individual trail activity such as hiking or four-wheel driving.

Figure 2: Core Use Type by County



Wherever the region in Arizona, the use of trails generates revenue and creates jobs for those living nearby.

*Health and Fitness.* Recreational trail use has direct benefits that satisfy personal needs of health, fitness and well-being. Trails offer fitness opportunities in natural settings with attractive scenery. Trails also provide an inexpensive, often free, way for individuals to increase their physical activity level, and often these trails are close to home. Many areas in Arizona offer trails that may be used throughout the year. In addition, trails have the potential to offer alternate forms of nonmotorized transportation that contribute to a healthier environment with less pollution. This has a direct effect on the health of the whole community. The benefits of trails include improvements to an individual's emotional health and quality of life. Using trails for recreational purposes can lead to the reduction of stress experienced in daily life. Trails also act as a meeting place for the community and can foster community involvement, corresponding pride and the opportunity to interact with people (Active Living-Go for Green).



*Education.* Trails provide opportunities for citizens to learn about environmental, cultural, historical or geological aspects of a particular area. They offer a means for people of all ages and abilities the opportunity to gain access and insight into the natural world. Increasing use of interpretive trails is an excellent example of how such information can be distributed to the public, resulting in a heightened awareness of an area. Utilizing trails as an avenue for education can nurture appreciation, knowledge and respect for the natural environment.

*Resource Protection.* Established trails provide a designated area for users, and these trails offer benefits concerning the protection of resources in natural settings. This removes people from critical or sensitive areas, reducing resource impacts. Trails can help in reducing cross-country travel that may have a negative impact on the physical environment. Local trail corridors can serve as buffers between various land uses, such as separating commercial and residential areas. They can be used to define areas where growth is planned or to protect unique environmental areas, such as floodplains, washes and critical wildlife habitats.

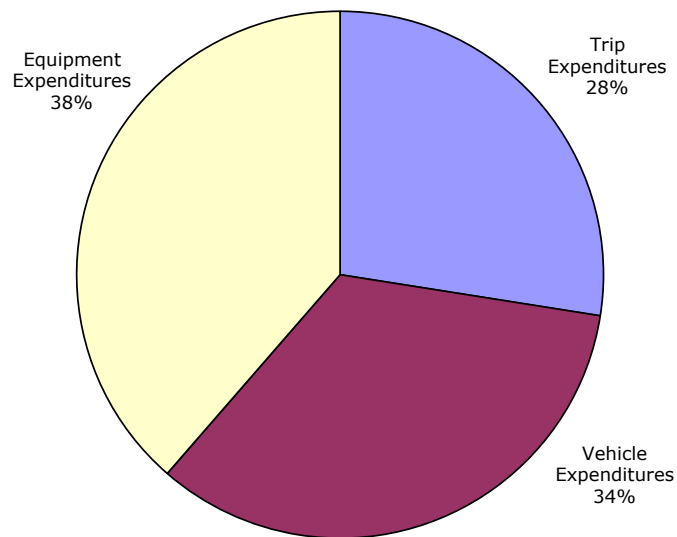
*Access and Linkages.* Trails in Arizona play a primary role in providing access to many different areas. Recreationists use trails to reach areas for fishing, hunting and rock climbing. Trails also provide the only access to wilderness areas in primitive Arizona settings. Trails may provide valuable linkages throughout the State as well. In certain communities, trails connect neighborhoods, schools, businesses, and parks and recreation facilities.

### **Economic Benefits of Off-Highway Vehicle Recreation to Arizona**

Whether one enjoys exploring Arizona's backcountry driving a truck, dirt bike or quad, or one prefers using their own muscle power to hike the trails, the following information may be of interest. Arizona State University conducted a yearlong economic study of recreational off-highway vehicle use in Arizona in 2002, completing 15,000 telephone surveys and 1,269 mail questionnaires from randomly selected Arizona households. See Appendix F for more detailed results of this survey.

The study findings show the total economic impact (direct and indirect) to Arizona from recreational OHV use is more than \$4 billion annually. OHV recreation activities provide an economic contribution to the State and its 15 counties mainly through direct expenditures for motorized vehicles, tow trailers, related equipment, accessories, insurance and maintenance costs.

Figure 3: Percent of Direct OHV Expenditures—\$3.1 Billion



Additionally, an economic benefit is generated when OHV recreationists spend money in local communities close to areas they recreate in for recreational trip items such as gasoline, food, lodging and souvenirs. These direct purchases (Figure 3) provide indirect benefits by helping to pay for many people's salaries and wages, and contributing to local and State tax revenues.

In 2002, Off-Highway Vehicle Recreation in Arizona:

- Created a statewide economic impact of \$4.25 billion
- Generated over \$3 billion in retail sales (trip expenditures, \$842.3 million; vehicle expenditures, \$1,035.2 million; equipment expenditures, \$1,178.2 million)
- Added \$187 million to annual State tax revenues
- Created household income (salaries and wages) for Arizona residents totaling \$1.1 billion
- Supported 36,591 jobs in Arizona
- Was participated in by 455,453 households or 1.1 million people, which accounts for 21% of Arizona's population
- Accounted for 12.2 million OHV Recreation Days in Arizona and an additional 1.8 million days in adjacent states and countries

The number of OHV households was determined by positive phone survey responses to three specific questions: 1) Do you own an OHV?; 2) Do you drive it off-highway?; and 3) Do you use it for recreation? Totals for vehicle and equipment purchases were factored (reduced) by the percentage owners said their vehicles were used for OHV recreation, not total vehicle cost. The economic model (IMPLAN) used to generate the direct/indirect estimates is more conservative than other frequently used models. Expenditures by OHV visitors to Arizona were not included.

These numbers show that off-highway vehicle recreation is participated in by many more people than just those core users recreating with dirt bikes, ATVs or snowmobiles. The majority of outdoor recreationists use many types of motorized vehicles, such as sport utility vehicles and pickup trucks, to reach their destination and enjoy driving the backroads in their vehicles to sightsee along the way.

## **Arizona's Trail Partners**

The agencies and organizations responsible for conserving and managing Arizona's trail resources include city, town, county, state, federal, tribal and private sector as well as clubs, organizations and individual enthusiasts. Many of the entities above also own the land that trails traverse.

## **Arizona's Land Ownership**

Arizona is the sixth largest state in the nation in terms of land area and includes over 72.9 million acres of land. The greatest portion of land, 30.6 million acres (42%) is federally owned, managed primarily as national forests, parks, wildlife refuges and military lands. The next highest percentage (27%) or 19.9 million acres is tribally owned. There are 12.8 million acres (18%) of privately owned land and 9.3 million (13%) of State Trust land (State Land Dept., 2003). City, town, county, and other State lands account for approximately 0.4% of Arizona's land.

## **Partnerships**

Many of the land managing entities have established partnerships with other agencies or organizations to share resources and improve trails. Of particular note is the partnerships between the Arizona State Parks Board and the many agencies and organizations involved in the planning, development and management of Arizona's trail resources. The State OHV and nonmotorized Trail Programs managed by Arizona State Parks (ASP) actively work with their partners in a variety of ways.

Many agencies have partnered with Arizona State Parks utilizing monies from the State Parks' administered OHV Recreation Fund (Tables 1 and 2), the Trails Heritage Fund (Table 3) and the Federal Recreational Trails Program (RTP)

(Tables 1 and 4) to implement a variety of motorized and nonmotorized trail projects.

The OHV Recreation Fund comes from a fixed percentage of total license tax on motor vehicle fuel. The Arizona Heritage Fund comes from Arizona Lottery revenues. The RTP comes from the Federal Highway Administration and is part of the Transportation Efficiency Act for the 21<sup>st</sup> Century (TEA-21). The RTP monies administered by Arizona State Parks equally funds motorized and nonmotorized trail projects statewide.

Table 1 shows competitive grants awarded from the OHV Recreation Fund and motorized portion of the RTP. Table 2 shows Partnership Agreements that utilize the OHV Recreation Fund. Table 3 shows competitive grants awarded from the Trails Heritage Fund. Table 4 shows partners awarded with trail maintenance services through the nonmotorized portion of the RTP fund.

*Table 1: Arizona OHV Recreation Fund and Motorized RTP Fund Competitive Grant Awards FYs 1993-2003*

<b>Partnering Entity</b>	<b># of Grants</b>	<b>\$ Awarded</b>
Cities/towns	3	\$445,609
Counties	7	\$2,240,085
State	3	\$590,681
Federal	58	\$7,646,814
Nonprofits	1	\$20,000
<b>Totals</b>	<b>72</b>	<b>\$10,943,189*</b>

\* The OHV Recreation Fund was redirected to the State General Fund in FYs 2002, 2003 and 2004. This forced the suspension of grants already awarded to recipients across the State.

*Table 2: Arizona Off-Highway Vehicle Recreation Fund\* Partnership Agreements FYs 2001-2003\*\**

Partnering Entity	Agreement Amount
Forest Service U.S. Department of Agriculture	\$750,000
Bureau of Land Management U.S. Department of Interior	\$750,000
Arizona State Land Department - OHV Recreation Program	\$670,000
Arizona State Land Department - Interagency Inventory and Mapping Project	\$2,500,000

\* Arizona OHV Recreation Fund Source: Arizona State Motor Fuel Tax.

\*\* The OHV Recreation Fund was redirected to the State General Fund in FYs 2002, 2003 and 2004, forcing the termination of agreements already awarded to recipients above.

*Table 3: Arizona Trails Heritage Fund Competitive Grants Awarded FYs 1994-2003\**

Partnering Entity	# of Grants	\$ Awarded
Cities/towns	31	\$2,137,573
Counties	16	\$934,706
Federal/tribes	49	\$2,075,878
<b>Total**</b>	<b>96</b>	<b>\$5,148,157</b>

\* Arizona Heritage Fund Source: Arizona Lottery Revenues

\*\* Since 1994, Arizona State Parks has received 5% of the Trails Heritage Fund annually for nonmotorized trail projects within the State Parks system; ASP did not compete for Heritage trails grant projects in FYs 1994-2003.

*Table 4: Nonmotorized Recreational Trails Program Trail Maintenance Partners FYs 2001-2004\**

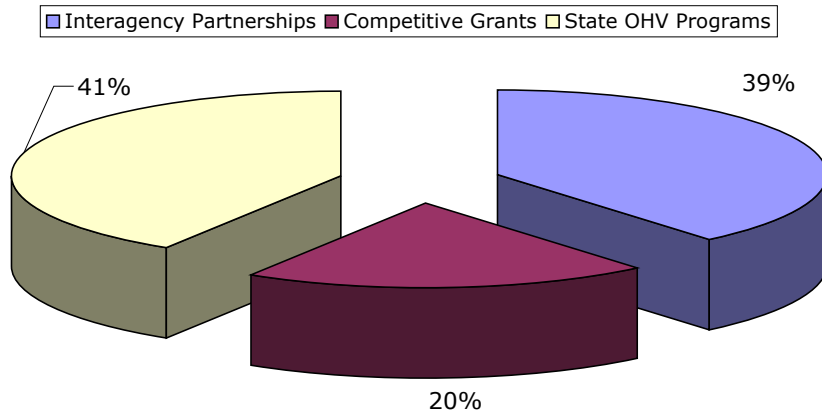
Partnering Entity	# of Projects	RTP Project Amount (estimated**)
Cities/towns	11	\$366,134
Counties	5	\$282,354
State	3	\$84,253
Federal	24	\$1,417,311
Tribal	2	\$32,187
<b>Totals</b>	<b>45</b>	<b>\$2,182,239</b>

\* Federal Recreational Trails Program Source: Transportation Efficiency Act for the 21<sup>st</sup> Century (TEA-21) from the FHWA.

\*\* All projects have not yet been completed so the amounts are estimated until expenditures are finalized.

Figure 4 shows: 1) the overall percentage (41%) of the total OHV Recreation Fund used by State agencies (Arizona Game and Fish Department, Arizona State Parks and Arizona State Land Department) for education and information programs, law enforcement, OHV management of State Trust land, technical assistance and administration, and 2) the overall percentage (57%) of the total Fund awarded by Arizona State Parks to various agencies through the competitive grant process (see Table 1) and partnership agreements (see Table 2). The competitive grant monies have been distributed to National Forests (57%), cities and counties (38%), State agencies (4%), and Bureau of Land Management (1%).

Figure 4: Total OHV Recreation Fund Percent Distribution FYs 1999-2003\*



\*The OHV Recreation Fund was redirected to the State General Fund in FYs 2002, 2003 and 2004.

### **Current Trends Affecting Trails Recreation**

The findings of the *Trails 2005: A Study of Arizona's Motorized and Nonmotorized Trail Users* report shows the importance of recreational trails to Arizona residents. There are several current trends that affect both the resources available for trails and the user demands for the recreation opportunities.

#### **Arizona's Population Continues to Grow at a Rapid Rate**

According to the 2000 Census Bureau, Arizona is now the 18<sup>th</sup> largest state with 5.6 million residents estimated in July 2003. The metro Phoenix area has catapulted to the sixth largest city in America, with over 1.3 million residents. With approximately two-thirds of the State residents who consider themselves trail users, more people are utilizing the State's trails every year. Results from the survey indicated several

top priorities for trails that correlate with Arizona's growing population. *Urban development limiting access* and *new development doesn't include trails* were issues that rated high on the survey.

#### **Loss of Access to Trails is Decreasing Recreational Opportunities**

Along with the increased population comes increased development. As mentioned above *urban development limiting access* is identified as a priority concern of trail users in the State. Trails are not always considered when planning for a community's growth. Arizonans are losing access to trails on public lands for a variety of reasons including land sales, closed lands, fee increases and urban sprawl. Another priority issue identified in the survey was the need to *acquire new land for public access to trails*.

#### **Public Land Managing Agencies Experiencing Limited Budgets**

In the past few years, governmental agencies and particularly land managing agencies have seen their budgets decrease. In their efforts to prioritize needs for their limited budgets, land managers find trails and recreation budgets often fall short of the need.

#### **Obesity and Physical Inactivity Epidemic**

While America has seen an increasing level of the population become inactive and overweight for the past two decades, the issue is just recently coming to the forefront and being considered an epidemic. Recreation opportunities including trails are making a natural connection.

In the past few years, National Trails Day themes have focused around the health aspects of hiking and other forms of trail use. National Trails Day is an annual event founded by the American Hiking Society to celebrate trails throughout the country.

The National Recreation and Park Association (NRPA) and the National Heart, Lung, and Blood Institute (NHLBI) founded the Hearts 'N Parks program. It is designed to help park and recreation agencies encourage heart-healthy lifestyles in their communities. The Center for Disease Control has made the beneficial link between physical activity and trails.

Trail use, especially hiking and walking, is effective in preventing or alleviating heart disease, hypertension, back pain, osteoporosis, diabetes and arthritis. A healthier population assisted by an inexpensive, often free, means of exercise can contribute to a decrease in expensive medical care. Trails can be considered a fun and inexpensive way to improve physical activity.

### **Arizona's Increasing Urban Population Seeks Trails Opportunities Close to Home**

In the past, demand for trail opportunities was fulfilled by the State's rural areas and back roads. As the urban areas continue to develop across the State and urban sprawl affects the major cities, there is an increased demand for urban trail opportunities. Residents are seeking trails that are closer to

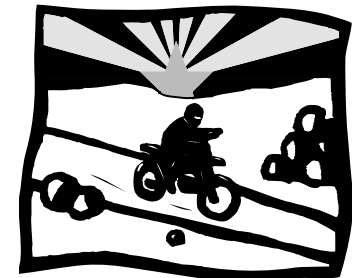


home and can be utilized before and after work and in free time without considerable travel time.

The survey indicated that for the trail activities done most often by nonmotorized users, 60% preferred locations that were in a city or town or just outside a city or town. For motorized users, 17.8% preferred locations that were in a city or town or just outside a city or town.

### **Rising Sales of Off-Highway Vehicles**

Off-highway vehicle recreation has been increasing every year and this trend is shown through the rising sales of off-highway vehicles. According to the Motorcycle Industry Council (MIC), estimated combined motorcycle and all-terrain vehicle (ATV) sales for 2003 reached 1,882,000, which is an all-time record up 5.2% over the previous year. As new OHVs are sold the demand for recreational trails and use areas along with effective management of motorized trail use is increased.



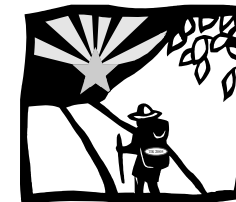
### **Trail Activity Participation**

The percentage of Arizonans who say they use trails has decreased somewhat since the ARIZONA TRAILS 2000 survey, however, because the State's overall population has greatly increased, the actual number of trail users in Arizona has also increased. A comparison of trail activity participation percentages from the 2000 and 2005 plans can be found in Table 5 (also see page 81). Of note: ATV use has nearly doubled and bicycling has decreased by nearly two-thirds.

Table 5: Percent of the Population that Participates in Trail Activities

Motorized Trail Users	AZ Trails 2005	AZ Trails 2000	NSRE 2003*	Nonmotorized Trail Users	AZ Trails 2005	AZ Trails 2000	NSRE 2003
<i>Motorized Trail Activity</i>	<i>Percent of Respondents</i>		<i>% U.S. Pop.</i>	<i>Nonmotorized Trail Activity</i>	<i>Percent of Respondents</i>		<i>% U.S. Pop.</i>
Four-wheel driving	55.0%	58%	17.4%*	Trail hiking (day hiking)	75.5%	78%	32.7%
Motorized trail biking	16.6%	20%	*	Walking (excluding trail hiking)	67.1%	78%	82.3%
ATV (all-terrain vehicle) riding	42.4%	24%	*	Backpacking	20.7%	19%	26.4%
Dune buggies and sandrails	5.0%	12%	*	Mountain bicycling (natural terrain)	14.3%	19%	21.2%
Snowmobiling	0.5%	3%	5.5%	Bicycling	13.7%	36%	39.4%
High clearance two-wheel driving	10.6%	37%	*	Horseback riding (trail)	13.5%	13%	8.0%
Driving to sightsee or view wildlife	49.8%	N/A	50.6%	In-line skating	5.0%	12%	-
Driving to visit historical/archaeological sites	40.1%	N/A	-	Cross-country skiing	5.3%	5%	3.8%
				Visiting historical/archaeological sites	52.1%	N/A	45.3%
				Wildlife viewing/birding	40.0%	N/A	44.1%
				Canoeing/kayaking (using water trails)	9.3%	N/A	9.6%
				Orienteering/geocaching (using map, compass, GPS)	1.6%	N/A	-

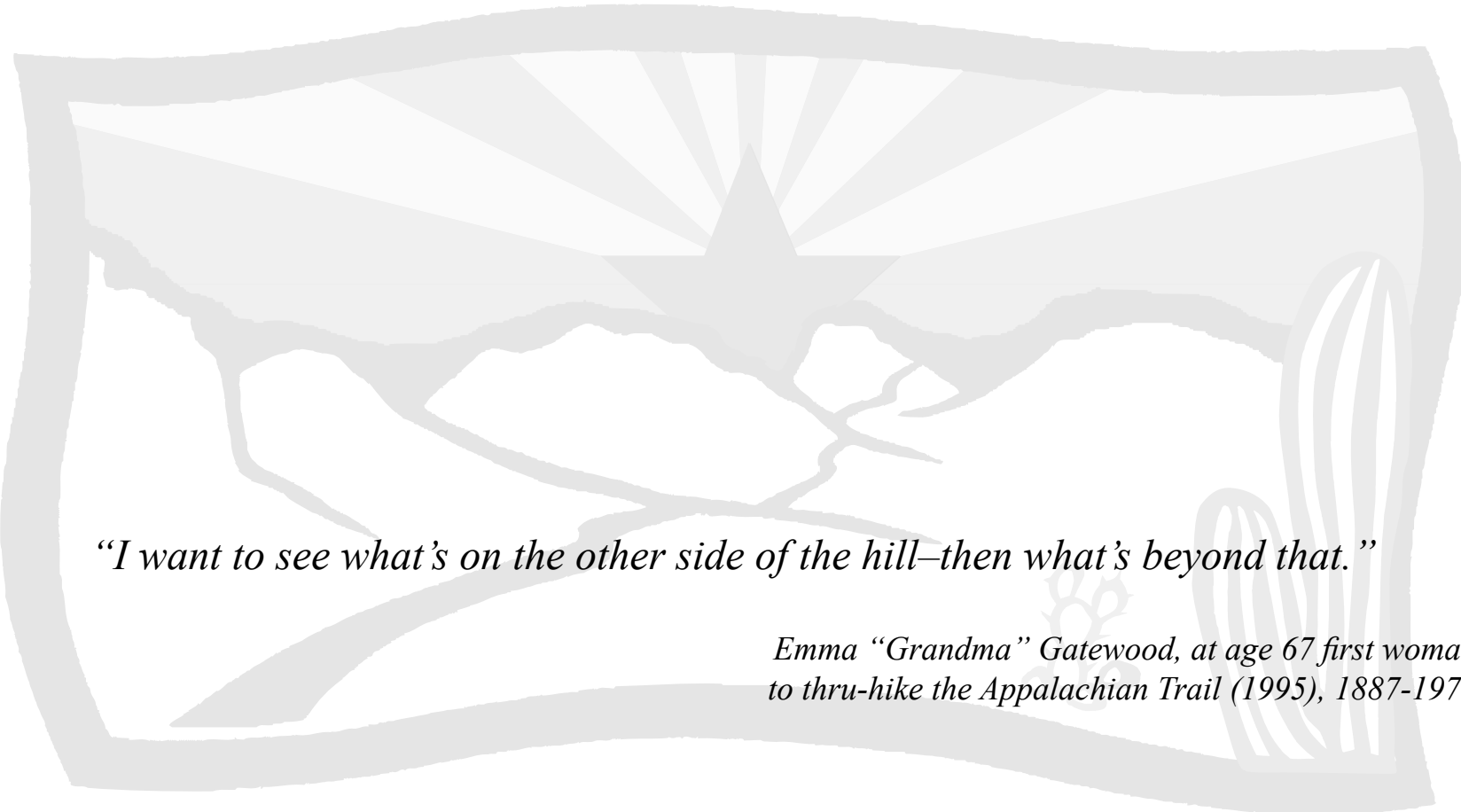
\*NSRE: 2000-2003 National Survey on Recreation and the Environment of people 16 years and older across the U.S. The survey combines four-wheel, ATV and motorcycle activities under *Driving off-road*.





## *Chapter 2*

# *Planning Process*



*“I want to see what’s on the other side of the hill—then what’s beyond that.”*

*Emma “Grandma” Gatewood, at age 67 first woman  
to thru-hike the Appalachian Trail (1995), 1887-1973*



At least three-quarters of all trail users get out and enjoy the trails with one to three other people; less than 7% go alone.

## Chapter 2: Planning Process

### Planning Process

In preparation for drafting the 2005 State OHV and nonmotorized Trails Plans, Arizona State Parks staff began a public involvement process in January 2003. State Parks combined much of the public involvement process for the motorized and nonmotorized plans. Staff chose to call the combined process *Arizona Trails 2005* as a follow up to the *ARIZONA TRAILS 2000 Plan*.

From January to September 2003, State Parks contracted with Arizona State University to conduct an extensive telephone and mail survey of Arizona residents regarding their participation, motivations, attitudes and preferences about recreational trails. Arizona State Parks staff along with Arizona State University researchers developed the survey questions and pretested them for clarity. Arizona State Parks utilized these survey questions in polling a targeted group of OHV and nonmotorized trail users, recreation planners and agency resource managers. Arizona State Parks staff also conducted 15 workshops or focus groups statewide as an additional way to obtain information regarding trail use and perceptions.

### Surveys

In order to gain an understanding of trail perceptions and usage around the State, approximately 5,000 people participated in the phone and mail surveys. The surveys provided information about public satisfaction of trail opportunities, estimates of trail use, preferences and concerns regarding recreational trails. The study included both motorized and nonmotorized trail

users as well as people who do not use trails at all. This allows for preference comparisons between the two user groups.

Staff utilized three different survey tools for the *Arizona Trails 2005*:

- 1) Random phone survey—a statewide, random, digit-dialed telephone survey was conducted with 4,888 Arizona adult residents to determine population percentages of trail user types at the county level and to gather basic information regarding trail usage (4,888 completed phone surveys—54.8% response rate from those who agreed to participate).
- 2) Random mail survey—1,197 households from the phone survey also completed a 12-page written survey to provide detailed information regarding trail usage, preferences and opinions (50.6% response rate).
- 3) Targeted mail survey—the same 12-page survey was completed by 285 “special interest” OHV and nonmotorized trail users, land managers and affected parties. These individuals were targeted because of their expressed interest in trail issues and planning (56.5% response rate).

The telephone survey served two purposes. The first was to obtain population estimates for motorized recreation trail users, nonmotorized recreation trail users and nonusers in each of Arizona’s fifteen counties. The second purpose of the telephone survey was to recruit participants to complete the mail survey.

Staff followed a modified Tailored Design Method (Dillman, 2000) for both the general public and target group mail surveys. The survey mailings began in February 2003. The

original mailing contained an introductory letter, survey and the incentives (half-off entrance fee to any of Arizona State Parks and a brochure/map). A second mailing of a reminder postcard was sent two weeks later to those original respondents who had not yet returned surveys. Two weeks after that a third follow-up mailing was sent to the nonrespondents which included a personalized cover letter, replacement survey and postage-paid return envelope. Staff applied the same survey methods and questions to both the target group and the general public so that the groups' responses could be compared. By soliciting input and analyzing the findings from both groups a more accurate picture of Arizona's entire spectrum of motorized and nonmotorized trail users was established.

### **Focus Group Workshops**

Arizona State Parks staff conducted 15 public workshops or focus groups as an additional way to obtain information regarding trail use and perceptions. These regional workshops were held in Flagstaff, Tucson, Pinetop-Lakeside, Lake Havasu City and Phoenix. The focus groups consisted of separate regional workshops for 1) motorized trail users, 2) nonmotorized trail users, and 3) land managers.

Staff sent electronic invitations to land managers, trail organizations and user groups, and known active trail citizens to participate in the workshops. In addition, press releases were sent out in each of the communities where workshops were held. State Parks staff made a concerted effort to include all types of motorized and nonmotorized trail users, representatives from recreational clubs, environmental groups and other organizations interested in or concerned about recreational trail and OHV activities, and staff from local, regional, state, federal and tribal agencies involved with trails and off-highway vehicle recreation.

Staff's intent for the workshops was to facilitate in-depth discussion about motorized and nonmotorized issues with small but diverse groups of interested people in various regions throughout the State. These focus groups allowed State Parks staff to 1) address in more depth questions from the survey, and 2) identify topics related to trails that were not addressed in the survey. Approximately 150 people participated in these workshops.

### **Additional Public Input**

The Arizona State Committee on Trails (ASCOT) and the Off-Highway Vehicle Advisory Group (OHVAG), both advisory committees to the Arizona State Parks Board, were heavily involved in the planning process for the *Arizona Trails 2005 Plan*. State Parks staff presented the process, survey and findings at regular meetings of ASCOT and OHVAG. These meetings were open to the public.

### **Public Comment**

The *Draft Arizona Trails 2005 Plan* was open for public comment from April 19 through June 30, 2004. The draft plan was posted on the Arizona State Parks' website and notification of the draft plan was sent to land managers, trail associations, related list-servs and trail users statewide.

During the public comment period, staff discussed the draft plan with both ASCOT and OHVAG at a joint meeting of the Committees and at separate meetings. The draft plan was also presented and discussed at public meetings of the Arizona Outdoor Recreation Coordinating Commission (AORCC) and the Arizona State Parks Board.

Staff received comments from various groups and land managers including: American Hiking Society, Arizona Trail Riders (who commented on behalf of numerous OHV

organizations in the State), Maricopa County, National Park Service–Rivers, Trails and Conservation Assistance Program, along with individual trail users. For the most part, comments provided for the plan were positive in nature regarding the planning process and results. Some comments suggested changes or clarifications to statements made in the plan. Certain comments requested elaboration of specific issues and additional issues to be addressed, a few comments requested additional information regarding the economic aspects of trails and trail use.

Several comments were received from the OHV community indicating they felt the percentage of motorized trail users was too low to accurately reflect the motorized usage in Arizona.

To help explain the survey findings, faculty at ASU provided clarification and some observations. After close review of this study and the 2000 trails study, one reason for the difference in user percentages may be attributable to differences in the research methods and sampling approaches for the two studies. While the two studies used generally similar methods, there were differences in the sampling strategies.

According to the 2003 survey, 24.5% of adult Arizona residents used trails for motorized recreation during the previous year. Based on the 2003 U.S. Census estimate of 3,763,685 adult residents, this finding indicates that nearly one million (922,103) adult Arizona residents used trails for motorized recreation during the previous year. The 2003 study also found that a total of 7.0% of adult residents used trails predominantly for motorized use (i.e., greater than 50% of all their trail use was motorized). This represents more than a quarter million adult residents and this estimate does not include residents less than 18 years of age or visitors from out of state.

Of all trail users responding to the phone survey, 24.5% indicated that they had engaged in motorized activities on trails at some point during their time in Arizona (Figure 1). The 24.5% motorized trail use estimate is consistent with other estimates defining a motorized trail user based on any such use, such as the economic impact study described in Appendix F. However, in the current study, a smaller percentage (7.0%) of the trail users said that motorized use accounted for the *majority* of their trail use (Figure 2). Although the estimate that 7.0% of trail users are predominately motorized users is lower than some other previous studies, close inspection of the data reveals some insights.

For example, while 24.5% of trail users engage in motorized recreation, just 15.3% of that group was *exclusively* motorized users. The remaining 84.7% of people who engage in motorized trail use *also* participate in nonmotorized trail activities (see Figure 1). This nonmotorized use accounted for a greater percentage of total use for most respondents. That is, while nearly one quarter of all respondents did participate in motorized trail use at some point, for most, nonmotorized activities accounted for the majority of their overall trail use.

Therefore, while categorizing trail users as motorized *or* nonmotorized is useful for comparison and planning purposes, it should be noted that most motorized trail users participate in a variety of motorized and nonmotorized activities while engaging in their motorized trail pursuits.

In addition, the population of Arizona continues to grow at a tremendous rate, with the most pronounced growth occurring in urban and urbanizing areas, especially Maricopa County and northern Pinal County. This growth is a critical factor impacting this plan's trail figures. The major influx of



residents has been to urban and urbanizing areas and, as this and previous studies show, residents in urban areas are less likely to be motorized trail users and significantly less likely to be *enthusiastic or core motorized trail users*.

Since 1990, Arizona's population has increased 40%, gaining nearly 2 million more people. The State's largest and most urban county, Maricopa County, has increased 45%, gaining 1.3 million people. Maricopa County has consistently had the lowest percentage of motorized trail users and with most of the State's population growth occurring in this one county, one would expect the statewide motorized use figures to drop substantially, but instead they went up from 17% (417,482 adult motorized trail users) in 1990, to 21% (666,494) in 1997, to 24.5% (922,102) in 2003. This 7.5% increase in motorized users statewide from 1990 to 2003 represents an increase of 282,276 new adult motorized trail users than if the 17% had remained constant.

Thus, motorized trail use is increasing in terms of the percentage of State residents that participate. And, with the State's growth, that percentage increase represents an even more dramatic increase in the total number of motorized users, but the core group of OHV enthusiasts may be a smaller overall percentage of motorized trail users, as this core group has been joined by a growing number of more casual motorized users.

These findings reflect the continued growth in popularity of motorized trail use; a finding that is corroborated by the intuitive observations of land managers, planners and trail users. Also, many popular OHV use areas have been closed in the past few years resulting in a higher concentration of users in areas that remain open, making the growth in motorized recreation even more noticeable.

These factors are of critical importance to land managers who are charged with managing and providing quality recreation experiences for this increasingly popular activity.

**Note:** While there have been no recent studies regarding children under age 18, the 1994 Arizona Statewide Comprehensive Outdoor Recreation Plan surveyed children ages 9-18 regarding their participation in recreational activities. More than 50% of the children said they had participated in motorized trail activities in the last year and motorcycle and ATV riding ranked number 8 (out of 47) as their favorite activity; four-wheel driving ranked 16th; snowmobiling ranked 40th. More than 75% said they had participated in nonmotorized trail activities (walking, jogging, bicycling) and horseback riding (55%) ranked number 6 as their favorite activity; trail hiking (69%) ranked 12th; mountain bicycling (32%) ranked 24th. Hanging out, basketball and attending sport events were the top favorites and the most frequently participated activities. For the 1994 study, the findings estimated that 210,757 children ages 9-18 participated in motorized and 316,135 children in nonmotorized trail activities. While not statistically valid, extrapolating these estimates to Arizona's 2003 population provides a "guestimate" of 320,896 children participating in motorized trail activities and 481,345 children in nonmotorized trail activities.

### **Final Plan**

State Parks staff incorporated changes to the final plan based on the comments received and prepared the document for final design and layout. In September and October 2004, staff submitted the *Arizona Trails 2005 Plan* to AORCC, ASCOT and OHVAG for approval and recommendation to the Arizona State Parks Board for final action in November 2004.